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Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Director

## **Waste Programs Division Solid Waste Rule Development Process Chapter 13 Solid Waste Management Draft (9/10/07) Stakeholder Input (received through 11/29/07)**

### **NOTES**

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Workshops were held to obtain stakeholder input on the draft integrated solid waste rule at the following three times and locations:

Tuesday, October 30, 2007, 1:30 p.m.  
ADEQ Main Office, 3rd Floor Conference Room  
1110 W. Washington St., Phoenix, Arizona

Thursday, November 1, 2007, 1:30 p.m.  
Lone Tree Community College, Board Room  
2800 S. Lone Tree Rd. Flagstaff, Arizona

Thursday, November 8, 2007, 1:30 p.m.  
ADES Conference Room  
400 W. Congress, Tucson, Arizona

Martha Seaman explained that the rule is currently in the informal review stage and that these workshops reflect pre-proposal discussions. Stakeholders should continue to see the website for updates and future workshops. E-mail notifications will also be sent to those who have provided this information.

Facilitator Theresa Gunn explained that these meetings would result in a list of questions to be resolved and clarified by agency staff. After publishing the list of issues compiled from the three meetings, a new timeline for the rule process will be provided. Additional stakeholder meetings will be held to discuss and potentially resolve each of the stakeholders' key issues.

Gunn asked attendees to provide feedback on what areas of the draft rule were unclear and where stakeholders disagreed substantively. The comments below were received via comment cards provided by meeting attendees, staff notes, and stakeholder e-mails and letters received during the workshop process. A list of all attendees and those who contributed e-mails or letters with comments pertaining to this process is attached to this document.

## General stakeholder comments:

- The current draft rule is better than the 24 separate and conflicting rules we dealt with in Guam.
- Rule does not consider changes in technology or creative operational procedures.
- I was surprised at the number of different interpretations offered from stakeholders at the previous meeting (in Phoenix).
- What's the time frame goal to complete this process?
- Universal: Add "hospital" to "learning center."
- Can the final or detail review process be broken up into articles based on groups collections, facilities, design, etc.
- The regulations do not address waste reduction. Bioreactor composting gas-to-energy.
- I would like to see more reflection on recycling and reduction of waste in the entire document.
- Request specific step-by-step chronology between now and GRRC.
- Request information on the source of requirements in the draft rule, perhaps side-by-side documents. Where did the standard come from?
- I would also like the source of the requirements.
- Could we have the comparative matrix of the other states and examples of the other state guidance documents?
- What is the procedure for commenting on the draft? (*Note: Participants at all workshops were encouraged to send e-mail to [seaman.martha@azdeq.gov](mailto:seaman.martha@azdeq.gov).*)
- ADEQ needs to try out real world examples and see how they would work.
- In addition to the Article 10/Article 7 conflict (see Article 10 notes), these rules need to be reviewed for other conflicts as well.
- Is the tax paid by those who use a landfill's scale part of this rule?
- Will there be an omnibus solid waste bill introduced this [legislative] session?
- With the significant increase in the number of facilities that will be regulated under the proposed rules, future stakeholder involvement in developing the final rules will be most helpful.
- Outline the process and timeline of the stakeholder meetings.
- The rules treat ALL solid waste facilities similarly and impose significant requirements on previously less- or unregulated facilities. The burdens/benefits with treating all these facilities similarly regardless of type or size should be carefully examined.
- Real experience examples: How do these rules address those examples?
- Learning facilities – what about existing facilities (landfill, MRF, etc.)?
- Maybe nothing needs to be done. Indian lands are excluded already because the state has no authority on the reservation lands, only on land that is Indian-owned, not part of reservation.
- Recycling facility within one mile – does that imply elimination?
- How are bio-reactors currently regulated by ADEQ?
- Why isn't a waste pile required to be moved to a facility or treated after 72 hours?
- With the greater than 90 days solid waste storage: For a site remediation, soils found to be hazardous waste must be removed within 90 days. Is it ADEQ's intent to require disposal of non-hazardous solid waste within 90 days as well?
- Time for approvals and reviews.

- Measure to protect learning sites.
- Grandfathering of current facility notice.
- Clarify when solid waste land disposal facility should be used rather than non-municipal solid waste landfill is used.
- How does solid waste landfill relate to solid waste land disposal facility? How does solid waste facility relate to on-site solid waste handling facility?
- Why are there new siting criteria for landfills that are not in 257 or 258? E.g. learning sites?
- Will plan approval replace APPs at landfills?
- The rule does not address the legislative mandate for ADEQ to develop rules regarding garbage disposal and collection within subdivisions (ARS 49-104.A.11). Many of our municipal and county members deal with inconsistencies in subdivision planning for solid waste collection services, and wish to have ADEQ develop appropriate rules for such planning. AZ-SWANA believes that the Integrated Solid Waste Rule would be the appropriate rulemaking to satisfy this legislative mandate.
- There are many questions regarding the relationship of solid waste facilities to “learning centers” in the draft rule, and what the implications are for solid waste facilities near learning centers. It is unclear from the draft rule what the intent is behind identifying learning centers in the vicinity of solid waste facilities.
- The general requirements of Article 4 and certification requirements of Article 5 are too cumbersome to be applied to every solid waste facility in Arizona. These requirements effectively impose a solid waste facility plan on every solid waste facility, and defeat the purpose of Title 49, Chapter 4, Article 4 in distinguishing facilities subject to facility plans, best management practices, or self-certification facilities. For several smaller solid waste facilities, some of which are not staffed during operational hours (e.g. rural collection points), the implementation of all of the general requirements may prove too burdensome to economically continue maintaining such solid waste services.

### Definitions

- Provide an appendix or guidance document that provides a master list with all definitions.
- Better define recyclables and solid waste. And, the requirement to bag-n-tie “garbage” but not recyclables.
- Need definition for solid waste facility.
- What is solid waste treatment?
- Are dead animals solid wastes?
- What is a recycling facility?
- Where’s the definition of “solid waste.”
- Need a definition for solid waste. Called out a number of times, should use it.
- Would appreciate solid waste and solid waste facility definitions within the rule. There are other statutory definitions that appear in the rule.
- Definition of flood plain: “Dept. of Water Resources” is used on p. 8 and p. 12. “FEMA” used on p. 57.
- Page 12: “On-site solid waste handling facility.” How can HHW be generated on-site?
- 100-year flood plain, please clarify which flood plain it is.

- The following definitions or portions of definitions are not used in the document, but appear in the definitions:
  - “New solid waste facility plan”
  - In “non-billable administrative cost or time” eliminate “or time” and “time” throughout this definition
  - “Non-publicly traded company”
  - In “one hundred-year flood” the term “base flood” should be eliminated
  - In “programmatic cost or time” eliminate “or time
  - In “total plan costs” eliminate “total financial responsibility plan costs”
- There is a definition for “washout” in A.R.S. § 49-774 (F)(2). The definition shown on p. 15 is not the same.
- Waste screening – clarify.
- Should there be a differentiation between transfer stations and MRFs? For instance, if a MRF does not recover a minimum percentage, then it loses its exemption.
- Definitions needing to be clearly defined and included for all terms used. Only use references when entire definition not included. Examples include Solid Waste, Solid Waste Facility (SWF), New Solid Waste Facility, and Existing Solid Waste Facility.
- Solid Waste Landfill appears to have several subsets, can all similar definitions be grouped together? Also the relationship to these should be clarified and when each is appropriate to use.
- The inclusion of “vegetative waste” as defined by ADEQ in R18-13-101 or more commonly referred to within the nursery/horticultural/gardening community as “green waste” is potentially very problematic for this industry.

The typical substrate “soil” used by Arizona nurseries contains 50-70% mulch (organic), produced by grinding tree trimmings and then amended, usually with sand, perlite, peat moss, and volcanic rock. The purpose of the organic content is to retain irrigation water while the inorganic components increase air porosity. A proper balance between organic and inorganic components is critical in the conservation of water.

Many of the larger container nurseries in Arizona produce their own mulch by accepting green waste from trusted suppliers. The green waste is delivered either in the tree trimming state or previously mechanically ground to a suitable particle size. At Civano Nursery, located in Tucson, we accept tree trimmings from Tucson Electric Power Company (TEP). The trimmings are produced by their line clearing crews. After onsite grinding we reduce the Carbon-Nitrogen ratio by mechanically turning the piles and maintaining a minimum of 45% moisture content.

### Article 3

- Does Article 3 refer to pre-facility pick up of goods?
- Need to ensure all Article 3 provisions are authorized by, and consistent with, current statutes, e.g. 18-18-304 is not fully consistent with the later adopted statute on the same topic (inspections) at A.R.S. § 49-763.
- Does the state have the authority to establish a recycling mandate?
- What is the definition of “dangerous materials or substances?”

- What about asbestos? Does bagging and wetting before hauling to the landfill meet the definition of “rendering harmless.” What does “rendering harmless” mean?
- Article 3 is entitled Solid Waste General Requirements. It should be divided into at least two sections. The first would be general requirements for generators and the second would be for waste transferors/handlers. The general outline of the regulation is set up to include all aspects while Article 3, Section 301 and 303 deal with individuals and the remainder of the Article 3 (except 311(d) and (e) which deals with agriculture) seems to deal with waste collection service companies or transferors. Suggest Service collection companies/transfer/treatment companies be kept in separate section from general/individuals.
- Solid waste regulatory authority appears to be limited to "solid waste facilities." The statutory definition of “solid waste facility” includes numerous exclusions, including an exclusion for the on-site accumulation of solid waste for 90 days or less. A.R.S. § 49-701.29(b). Article 3 nevertheless sets forth a number of requirements for solid waste generators and other owners/operators of facilities that are not “solid waste facilities.” My concern is that these requirements do not appear to be authorized and in many respects are not appropriate for industrial generators of solid waste.
- Whether or not similar provisions already exist in the regulations, I believe this entire article needs to be deleted or overhauled. If there are some requirements that are appropriate and authorized in the context of municipal trash collection, it is important that such requirements be limited to that context. As universally applicable solid waste regulations, these provisions just don't work.
- Request that definition of solid waste, already in statute, be placed in rule as well for convenience of the reader.
- Where is the statutory authority for Article 3? Where is the statutory authority for ADEQ to regulate industrial generators?
- Dangerous material is undefined. Does contaminated soil need to be rendered harmless at the generation site? If so does the excavator need to be a treatment facility?
- At a LUST site, is PCS a dangerous material?
- Rendering undefined “dangerous materials” harmless is a steep standard.
- In backcountry, say around the Rim, dead cattle are left where they are, a type of “natural” disposal. One can't go in and collect the dead animals in that country.
- Does the definition of “solid waste” include dead animals?
- Why is the term “refuse” left out of the draft rule?
- How can the State force private collection services to take certain items?
- Does ADEQ rule regulate rendering?
- Large dead animals on the side of the road are often left there by ADOT. They cannot haul them all away.
- Should not allow grinding into the sanitary sewer.
- Under a variance, do recyclables have to be bagged and tightly closed? Many MRFs prefer that they be loose.

## Section

## R18-13-301

- Should this read, “A person or entity...”?
  - How does this article impact “cradle to grave” responsibility?
  - Need definition of dangerous material or substances.
  - Refuse left out of new definitions and removed from old definitions.
  - Language in 301 leaves out the middleman, who the generator may pay to take to a disposal facility. (*Note: Transporters are covered in 310.B.*)
- (A) – Would make generators of solid waste “responsible for the sanitary handling . . . of the solid waste.” It is unclear what this provision requires, but it does not appear to be necessary or appropriate in the context of industrial solid waste.
- (B) – One person’s “litter” is another’s storage, particularly with large equipment or vehicles, scrap metal, timbers, tires, etc. that don’t fit in containers, may need to accumulate to get enough for contractor to come and get it (particularly important in rural Arizona).
- (C) – Suggested revision: “Render harmless” to be defined as “to isolate by securely wrapping or packaging so as to prevent any chance of harm to waste handlers (transport and disposal).”
- (C) – Would make generators responsible “for rendering harmless solid waste that is or contains dangerous materials or substances prior to collection and disposal.” It is unclear what triggers obligations under this provision (there is no definition of “dangerous materials or substances”), or what the obligation is (what does “render harmless” mean? Must material be treated to render it safely ingestible?). In any event, this provision is clearly inappropriate as applied to industrial waste generators. Industrial generators commonly ship waste off-site for appropriate treatment, and there is no reason to ban this practice (which is what the draft rule text would appear to do).
- (C) – Regarding (PCS) petroleum contaminated soils: If soil is to be transported for treatment and disposal as written PCS must be treated before transport. Check with LUST division.
- (C) – Does “render harmless” apply to residents?
- (C) – Would ADEQ pursue individuals that do not comply, or those this activity is delegated to?
- (C) – Should not require “rendering harmless.”

## R18-13-303

- What is the difference between “solid waste that is or contains dangerous materials or substances” and hazardous waste?
- If owner has no operational control of a business (only leases out property) should not be responsible or cited because of operator’s failure to comply.
- Clarify the definition of “owner” and “operator.” Owner should include the “property owner.”
- What is meant by “industry?”
- Clarify “owner” and “operator.” Definitions as used to not apply in section.
- Add “lessee.”
- Appears to create unintended liability to lessors of premises.

- Can a lease agreement allow the lessor to be contractually free from liability under 303?
  - Need to clarify or define the difference between an owner and operator.
  - Define the phrase “rendering harmless”?
  - Does “PRIOR” mean that treatment must take place at a generating facility before waste can be transferred to a treatment facility?
- (A) – Strike “adjoining.”
- (A) – The proposal to add “adjoining” here seems to allow a person to put his waste on streets or alleys that are not adjoining.
- (A) – In the second sentence, strike “adjoining.”
- (A) – In the second sentence, add: “...public street, road, or alley, or property of another...”
- (A) – Would make any owner, operator, or occupant of premises responsible “for the sanitary condition of the premises” and – extraordinarily – for policing disposal by third parties in adjoining public streets and alleys. It is unclear what these provisions require, but again they do not appear to be appropriate in the context of industrial solid waste generators.
- (D) – Regarding (PCS) petroleum contaminated soils: If soil is to be transported for treatment and disposal as written PCS must be treated before transport. Check with LUST division.
- (D) – Would also impose the problematic requirement “for rendering harmless solid waste that is or contains dangerous materials or substances prior to collection and disposal” (also discussed in 301(C) above).
- (D) – “Business establishment” is duplicative of “any premises”; owner is not used as it is defined in Article 1; it may be overreaching to make property owner/lessor responsible for a lessee’s failing to render the lessee’s waste harmless.
- (D) – Why new siting criteria not in D such as “learning sites?”
- (D) – Should not require “rendering harmless”:
- Ammunition – sent offsite for treatment
  - Household “sharps”
  - If not RCRA hazardous waste criteria (which is regulated separately) then it shouldn’t be regulated as “dangerous.”
  - Should be allowed to be sent off for treatment

## R18-13-304

- Strike “shall” insert “may.”
- See A.R.S. § 49-763 inspections.
- What is the purpose of 304? Can’t ADEQ make these inspections without the rule?

## R18-13-305

- Wherever “solid wastes” occurs make singular.
- A collector is responsible for proper delivery of waste-to-waste facility.
- Remove wording: “which do not exceed 75 pounds in weight.”
- Raise definition of small animals to 100 pounds.
- Need additional work. Land restrictions i.e. wilderness areas or areas that are not accessible, would limit the ability to meet requirements.

- The term dangerous needs to be defined.
  - There seems to be a LOT of ambiguity as to how to handle animals. It's not specified in 49 def., and R18-13-305 speaks to dead animals separately.
- (A) – What is ADEQ trying to regulate? 75 pounds? Should not force a provider to take these things (garbage, ashes, rubbish, small animals) – doesn't allow for specialty collection.

## R18-13-306

- (A) – Is it logically consistent to use “may” establish, then “shall” cover?
- (A) – Does the 75 lb. limit in apply just to dead animals, or to the rest of the list?
- (B) – Can the listed items be done throughout the year?
- (B) – Send notice of availability only not all conditions.
- (B) – What is the intent of the notification of once annually?
- (B) – What is intent? Why? What is to be gained? Maybe 2 million may need to go out.
- (B) – Requirement for annual notices would be expensive, requiring “millions” of notices.

## R18-13-307

- Remove the size of container – the size shall be determined by the trash hauler.
  - Gives detailed requirements for storage requirements that seem to be for solid waste collection service but as written seems to include all generators.
  - Clarify references of storage/containment to address garbage (putricable waste) only and not rubbish
  - Would impose universal storage requirements that would appear to require all solid waste to be stored in containers meeting certain specifications. These requirements are completely inappropriate in the industrial waste context, and would be particularly problematical in the context of contaminated soil.
  - Internal conflicts: 307 requires tanks and containers; other sections refer to waste “piles.”
  - Define detachable.
  - Limitations for rollofs at manufacturer's facility.
- (B) – Keep first sentence of B.
- (B) – The way part B is written is very broad and seems to require all owners of any premises to store all solid waste in watertight containers with tight fitting covers. This has been broadened from “garbage” to “solid waste” – does this apply to solid waste facilities only or any premises business establishment or industry? This seems to eliminate the use of open roll off bins for any solid waste. Why was this broadened and who does it apply to?
- (B)(2,3) – Detachable container needs to be defined as a bin, barrel, or rolloff.
- (D)(1) – How is removal of doors enforced?
- (D)(1,2) – All doors are removed from white goods – When received? Why? Bulky wastes (I assume includes white goods) are covered to prevent the accumulation of solid waste or water in and around the bulky items. Items 1 and 2 only apply to curbside pick up, not at the landfill facility. I assume this is only for curbside pickup by bulky collection service. If so, state only for curbside pickup. The City



of Flagstaff gets many refrigerators brought directly to the landfill as well as other white goods.

- (D)(2) – Do not require resident's bulky waste piles to be covered for quarterly bulk waste collection.
- (D)(2) – Requirement to always cover bulk items may be infeasible for municipal bulk item pick-ups.
- (E) – Is this addressed elsewhere? Need homeowner context for county public nuisance calls. See also 311(C).
- (E) – Manure and droppings: Language to be struck is helpful to County Health in identifying "nuisance." New section does not clearly identify nuisance.

#### R18-13-308

- Include standards for once weekly – not variance.
- Clarify what "presumed" means or change to "deemed."
- Why not include recycling/collection as weekly collection?
- Who is seeking the variance, the jurisdiction, or the person or company providing collection service? Define "jurisdiction."
- (C) – One of terms "jurisdiction" – needs definition? Or should it be "pursue"?
- (C) – What does "presumed to be acceptable" mean?
- (C)(1) – That all garbage is bagged and tightly closed (90 % overall compliance)? It should match what the county is looking for.

#### R18-13-309

- Gives detailed requirements for storage requirements that seem to be for solid waste collection service but as written seems to include all generators.

#### R18-13-310

- Vehicle needs to be in good repair i.e. not leaking any fluids.

#### R18-13-311

- Handling of large dead animals problematic for ADOT. Road kill is pulled off the side of the road and left. Cannot haul off and dispose of – most occur in rural areas.
- If animals are solid waste then they should be separated out additionally in rulemaking.
- Add an option to dispose as directed by Arizona Game & Fish if covered by their jurisdiction.
- Please change "Indian Country" to a politically sensitive wording.
- Would apparently prohibit any "handling" of solid waste other than at solid waste facilities. Although there are some specified exceptions, there are many statutory exclusions (including the generator accumulation exclusion) that aren't mentioned.
- (A) – Is this more of a process issue?
- (B)(1) – Dead animal burial. Provide limitation on number of animals per area.
- (B)(4) – Dead animal composting:
  - Proper impervious base to protect surface and ground water.
  - Proper type and sufficient carbon source keeps from attracting pests (i.e. flies) if sufficiently covered.

- Water source.
  - Leachate contained and used for moisture (recycled back onto compost pile)
  - Temperatures controlled via moisture. Keep temperature records.
  - Allow 50 percent compost mixed back into new pile.
  - Compost pile managed (i.e. turned) via temps.
  - Compost provides organic matter and soil structure for farm ground.
  - Not necessarily protected from rain/snow, but must be able to control moisture.
- (B)(4) – Other states see this as a good practice when done properly. (Stakeholder will provide list of industry practices. See also State of Iowa information.)
- (B)(4) – While a commercial business can compost animals properly, allowing any property owner to compost without providing guidance is irresponsible and may cause a nuisance.
- (C) – With these changes, manure cannot go to a ranch landfill. This should be left as an option.
- (C) – What about situations where 100 hogs must be slaughtered? There could be hardship situations.
- (C) – Counties do not want to define nuisance.
- (C) – Suggestions for composting dead animals. Manure too.
- (C)(2)(a, b, c) – Term promulgated is inappropriate use of term here.
- (D) – Should not appear in regulations.
- (D) – Don't think rule should say "solid waste" may be disposed of by grinding.
- (D) – You can dispose of dead cows by garbage grinding?

#### R18-13-312

- Compost issue (see letter from Civano Nursery)
- Incineration deleted – why? (Pecans and marijuana?) (*Note: This was moved to another section*)
- What about rural homestead landfills/exemptions? (*Note: This is not addressed here but remains in statute.*) Wildcat dumping?
- Can closed landfills be mined?

#### Article 4

- Would these new requirements apply to plan approval facilities? The stormwater issues are more stringent than we are currently subject to. (R18-13-404 to 411)
- What is the difference between a small and large transfer station? (*Note: Please see matrix.*)
- Impossible to comply with R18-13-401 to 412.
- Many of the substantive requirements for plan approval in articles 4 and 5 seem excessive for on-site landfills that receive only solid waste generated on the site, especially where the landfill is within a large area covered by an APP. Examples: Some of the waste screening and identification protocols.
- Are rollofs or other containers at the schools prohibited?
- Does a landfill have to update their notice annually if nothing changes?
- Define "Indian country." There is private land and Forest Service managed land within reservation boundaries.

- Who has to file a notice? Are household hazardous waste collection sites solid waste facilities? (*Note: See A.R.S. § 49-701(29)(n).*)
- Isn't a solid waste facility near a learning site really a planning and zoning issue?
- Will roll-offs be prohibited on school grounds? Near school grounds?
- Landfills already have an operational plan, contained within their approved plan. Does this operational plan need to be a separate stand-alone plan?

#### Section

R18-13-401 – Suggest replacing language “not in Indian country.”

R18-13-401 through 407 – Seems to be for generators at a SWF while 408 & 409 seems to be for a treatment, processing facilities, or waste collection service companies in that it talks about “receipt of waste” and “open for public use.” Can Article 4 be subdivided into two sections for generators and treatment/processing facilities?

R18-13-402

- Who must do the notice?
- (A) – Requirement to file notice 30 days before operating a solid waste facility may be impossible for a generator who becomes a solid waste facility due to episodic releases.
- (B) – Is the notice under 402.B a new plan approval?
- (B, D) – Notice must be filed, but need the form called for in part D. Suggest 180 days after the FORM is created.
- (D) – Calls for a plan, but section 1115 implies a five-year exemption. (*Note: This refers only to the notice.*)
- (D) – Is this notice requirement satisfying statutory requirements?
- (E)(4) – Should add specific types of waste.
- (E)(9) – How does this apply to non-landfills, such as a transfer station?

R18-13-403

- “BMPs” includes a long list found throughout the rule. I am concerned about our actual BMP practices, vs. the plans, which seemed to be spelled out here.
- (2) – Reads as only facilities owned by government. What about those not owned by government? Seems that non-government entities should be held up to government standards.
- (3) – Looks difficult – permit without a permit process.

R18-13-404

- If a facility is permitted under APP do we re-permit under solid waste?
- Operational plans under 404 are difficult for regulated community to deal with. They are like a permit (because plans have to be complied with) but the plans are not approved by ADEQ. Because those regulated also have to comply with the rules, it is possible that someone will discover in hindsight that the plan conflicts with the rules, and that it was impossible to comply with both.
- (A) – Do we need to pull out this information from our plan as a separate document?
- (B)(8) – Use of the word “standards” instead of “requirements.”

(B)(8) – What is the difference between “standards” and “requirements” as used in the draft rule?

(B)(14,15) – Discuss groundwater protection issues. Can this section reference the site’s APP?

(B)(18) – What is the radius of concern for learning sites?

R18-13-405

(C) – “60 months” might conflict with other lengths of time noted elsewhere in rule.

R18-13-406

- Is this a new annual report? We currently produce a report.
- AZ-SWANA supports the annual reporting for solid waste facility collections and recycling quantities to provide a better understanding of solid waste management practices in Arizona under Article 4 of the draft rule. AZ-SWANA would also like to see the Department commit to maintaining such information in a readily accessible and user friendly format with funds received from the recycling fund financed by waste disposal fees under ARS 49-836.

R18-13-407

- Why not require compliance with NPDES period. Take this part out.
  - Is this section consistent with the state ADEQ or federal stormwater permit? Check with Water Quality Division.
- (B)(1) – Prevent flow into the “active portion” of the facility. City codes require facilities to accept half the road runoff onto their property.
- (B)(2)(b) – Does this preclude any infiltration from stormwater basins (essentially requiring lined stormwater basins)?
- (B)(2)(b) – This language is different from 40 CFR 258, which does not mandate full retention of 25-year, 24-hour storm volume. How will “retention” be defined and will it preclude bleed off of basins over a 12 to 24 hour period (typical of local government retention/detention design criteria). Could this create water rights issues? Need to define what is meant by “retain.”

R18-13-408

- Reminds me of Rathje’s garbage sorting project. Seems to require my employees to come into extensive contact with garbage and do extensive screening. Is this the intent?
  - What waste screening program is needed where no receipt of waste occurs? If this section does not apply to generators or private landfills that do not accept waste from other sources that should be detailed. If portions of the section should apply a separate section should be written.
- (B) – Risk management.
- (B) – Eliminate (B). (C)(1) should suffice.

R18-13-410

(A) – May want to remove “timely.”

R18-13-411

- Need to add that bulk containers can be open containers so long as they are temporarily covered when weather dictates.
- (A)(1) – What about roll-offs? These are not designed to be leakproof. Whose responsibility is this?
- (B)(4-7) – Mis-numbered.

R18-13-413

- (E)(7) – 90 days to complete closure operations may be an unreasonably short time frame, especially for a large landfill.
- (E)(7) – 90 days might not be enough to close the landfill.

**Article 5**

- The title should have the word “and” changed to “or.”
- What is the difference between an expansion to a SWF and a substantial change to SWF?
- Does Article 5 refer to new plan approvals?
- May need to clarify the difference between generators and transfer facilities here.
- Article 5 heading should be “OR” not “AND.”
- “100 year floodplain” and “surface flow” are not adequately defined because different municipalities use different standards; there is no FEMA definition.
- Make sure that ADEQ is subject to timeframes requirements for all its determinations related to Type I through Type IV changes. If possible, reference them in the solid waste rule.

Section

R18-13-501

- (B)(3) – Allow Internet publication instead of or in addition to newspaper publication? May conflict with 762.05(B)(5). (*Note: Statute requires publication in newspaper.*)

R18-13-502

- Define 100-year flow – by area, volume or by local standard.
- (C) – Should replace list of facilities after municipal solid waste landfill with “Solid Waste Land Disposal Facilities.”
- (C)(3) – Why are the BADCT provisions of § 49-243(G) excluded from consideration in the ground water protection provision for plan approval? (This question is regarding a solid waste landfill at a mining site.)
- (C)(5) – This appears to require an alternatives analysis similar to the APP program for all environmental controls proposed. R18-13-1104 indicates that certain liner systems are presumed to meet APP BADCT requirements. Will these prescriptive designs require an alternatives analysis?
- (C)(5) – What about the landfill liner system? This text seems to indicate that the liner system for each landfill is subject to negotiation/demonstration. Currently there exists a standard/minimum liner design.

- (C)(5)(a) – Why are the BADCT provision of § 49-243(G) excluded from consideration in the ground water protection provision for plan approval? (This question is regarding a solid waste landfill at a mining site.)
- (C)(6) – What if the landfill is within the footprint of a larger area with an APP and already established POCs? Additional POCs should not be required within the facility. (This question is regarding a solid waste landfill at a mining site.)
- (C)(6-10) – Should be replaced with a reference to being in compliance with the site's APP.
- (C)(7)(b)(v) – Communities have different standards.

R18-13-505

- (C)(4) – Alternative cover – standard with variance. Provide a performance standard not try to define.
- (C)(4, 13) – Why do 4 and 13 need to be Type III?
- (C)(6, 7) – Changes described are not necessarily “substantial” enough to be Type III changes. Add “substantial” before modification in C.6. Recognize that some changes in frequency at C.7 are good practice.
- (C)(13) – Why?
- (C)(14) – What is the justification for making greater compaction a Type III change?
- (C)(14) – Compaction should not be a Type III change.
- (D)(1) – Why “greater compaction?” Varies by type of product and day.

R18-13-508 – How will multiple self-certification facilities be handled regarding fees?

**Article 6**

- What is the statutory authority for solid waste facilities? What is the authority to create new facilities? I am concerned about others questioning this.
- Who does Article 6 apply to? Definition begs question of who is a solid waste facility, because the statute exempts many on-site generators from being a solid waste facility. ADEQ needs to sharpen its pencil here. For example, if an industrial facility uses a trash compactor, is it treating solid waste, and is it a treatment facility? Also, whether and how soil remediation sites will be handled under Article 6.
- What about excavated soil that is kept on site for 90 days?
- Can there be multiple (sub) facilities at one (large) facility. (*Note: ADEQ answered “yes.”*)
- Is every wastewater treatment system in the state regulated under Article 6? Just impoundments?

**Section**

R18-13-601

- What is “on-site?”

R18-13-602

- Does this regulate wastewater treatment facilities? What is the intent?

R18-13-602/603

- Add “new” to onsite solid waste handling, as existing facilities may not meet these requirements.

R18-13-604

(B) – City keeps small containers longer than 90 days. (*Note: Stakeholder example discussed was not an on-site generator, and not on-site storage.*)

(B)(3)(d) – Define disinfection.

## Article 7

- Baling and compaction site storage facility is not defined.
- Add language as follows: “Any other solid waste facility.”
- Statute says a solid waste facility can be a site.
- How does the definition of an intermediate apply to drop off areas which are designed to keep the public a distance from the landfill?
- Who is regulated here? (*Note: Definition is on p. 10.*)
- Define, (as you use them) “leakproof,” “water proof,” “drip proof,” and “break-resistant.” (*Note: “Drip proof” is not used, only “drippage.”*)

## Section

R18-13-701, et. al.

- Will ADEQ be generating and publishing BMPs?

R18-13-702/703

- Add “new” to on-site solid waste handling, as existing facilities may not meet these requirements.

R18-13-703

(A)(2) – How can you protect the tipping floor from wind, rain, or snow unless it is enclosed inside a building?

(A)(2) – Define what you mean by protection of the tipping floor from wind, rain or snow. Many transfer stations are open air, which may be OK if there is a drainage area.

(A)(2) – Define “tipping floor.”

(B)(1) – Many current transfer facilities do not have side curbs and impervious floors. How will this design and construction standard be applied to current facilities?

(B)(1) – At this type of facility, an “impervious surface” will wear, and won’t stay impervious.

(C) – Reference to 411. Lids or covers for a 40-yard roll off will be difficult.

(C) – Is the intent to have the drop box covered?

R18-13-704

- What is “intermediate” solid waste handling facility. Is it a function of what you do, or how you handle it? There is no guidance on how this would be enforced. Time may not be the best marker. There should be a way of defining of it is a public

nuisance. “Intermediate” may be better defined as “transitory.” (*Note: ADEQ may want to include the nuisance concept in Article 4.*)

- It looks like we will need to date and label small amounts of HHW. Date of receiving vs. date of originally stored in household is also an issue.
- (E)(1) – Liquid waste. City of Flagstaff Hazardous Products Center takes individual containers from businesses at households that should not be mixed and are stored in the containers that are received, such as cleansers, acids, bases. Do each of these bottles need to be dated when received? If the original label is on the bottle is that adequate? We get some unknowns and write the pH on the unlabeled container. Is the pH and date received adequate labeling? We also bulk some hazardous liquid waste. Do we have to write a received date on the 1 gallon cans before they are bulked in 55 gallon drums?
- (E)(2) – Batteries are normally stored on pallets.
- (E)(3) – Car batteries picked up from the side of the road contain free liquids – they go for recycling at a facility that is not RCRA regulated. This is a problem for ADOT.
- (E)(4) – Liquid waste. ADOT frequently picks up water bottles filled with urine thrown out by truckers along the highway. It’s no practical for them to 1) Separate this waste stream from the rest of the small debris collected 2) Label and date these bottles since we want to minimize handling of bodily fluids.
- (H)(2) – How will ADEQ enforce not accepting certain types of liquid waste at a drop box?
- (H)(2) – This is not manageable. Definition of liquid wastes as “contains liquid” has unintended consequences.
- (H)(2) – Does this mean a glass container will not be accepted because it is not break-resistant?

#### R18-13-705

- (A)(2) – All storage of tires, scrap metal, and other large debris from the road side is stored outdoors at ADOT facilities
- (A)(3) – What is the point of this? ADOT facilities may or may not be paved. All weather?
- (A)(4) – Does the ADOT employee returning from the road to the ADOT yard count as the attendant?
- (F) – Suggest revision: “Owner or operator of a manned intermediate...” Not possible to keep the suggested records in the case of an un-manned facility. Also affects (H).

#### Article 8

- Does a waste-to-energy facility fall in this category?
- ADEQ should seek statutory authority to include a waste-to-energy facility in the plan approval process.
- Is incineration in this section? (*Note: It is considered a treatment option.*)
- Suggest more specific language about incinerators. An investor considering Arizona would not be sure if the rule covers incinerators. Perhaps as a note under “special waste facilities.”
- Why isn’t the federal bioreactor demonstration rule included in Article 8?



- Bulking or mixing point for re-use from HHW events? Need to make it clear.
- What is treatment? Does this include HHW bulking? Mixing for paint reuse?
- Is compaction of trash “treatment?”
- Is double-bagging asbestos? Is bulking paint and oil, say at a household hazardous waste facility that is otherwise exempt under 29(n)?
- Liquid waste – separate and label?

#### Section

##### R18-13-802

- (B) – One mile from a learning site is too strict for every kind of treatment facility. Also, with respect to the definition of learning site, not sure how someone would know a learning site is “planned.”
- (B) – One mile from a learning site is more restrictive than a flood plan.

##### R18-13-802/803, et. al.

- Add “new” to on-site solid waste handling, as existing facilities may not meet these requirements.

#### Article 9

- Separation between solid waste composting and vegetative/matter composting.
- Vegetative waste vs. green waste should be defined.
- Compost is not defined, yet the compost process is in rule.
- Are we considered composters or producers of bark mulch (Civano Nursery)?
- What state rules were used to draft the Arizona rules? Article 9 is very restrictive. Composting of manure and green waste can be accomplished using different approaches. This section does not allow for flexibility.
- Composting. Can there be pilot projects or demonstrations, bioreactor, etc.?
- Would like to address bioremediation composting of non-hazardous waste. Example: Soil with hydrocarbon PCS.
- Composting is more than green waste. PCS is one way it can be done. This avoids adding items to landfill and can avoid creation of hazardous wastes.
- Sierra Vista needs to be contacted regarding composting success.
- Composting in-vessel vs. those that are not need to be handled differently.
- Suggest ADEQ look at other states’ composting models, such as NM.
- Add provision for pilot testing to determine quality of final product.
- Ultimate use and pilot provision for testing.
- “Composting” needs a definition.
- What is the source for the design and construction standards for composting facilities? (*Note: This refers to a variety of sources.*)

#### Section

##### R18-13-901

- (C) – I would respectfully request that consideration be given in section R18-13-901 subsection C, where responsible green waste reduction facilities are exempt from this proposed Administrative Rule along with farmers composting their waste products for their own use.

R18-13-902

- (B)(2) – With respect to the 1/2 mile from a floodplain restriction, what type of floodplain?

R18-13-903

- Define municipal sewage treatment sludge.
- (A) – Differentiate between moisture content listed for effluent stream and sludge.
- (A)(1) – The requirement to “comply with water quality requirements of A.R.S. Title 49, Chapter 2, and any rules established under that chapter for all discharges” means just what? (See A.4.b also.)
- (A)(1) – Entire permit process?
- (A)(3) – Alum. sludge – can it be used for compost?
- (A)(3, 4) – Define sludge by percent moisture.
- (A)(3, 4) – Often effluent stream (70%+ moisture) is used for water (moisture) on windrow or other types of composting for water conservation in place of fresh water. “Sludge” of low moisture could not be used for this purpose; “sludge” of high moisture (what I would call effluent) could be.
- (A)(3, 4) – Remove sludge from (4), leave in (3).
- (A)(3, 4) – These sections appear to be in conflict about how sewage sludge can be composted.
- (A)(4)(a) – What type of sewage treatment byproduct, biosolids or sludge, would require in-vessel composting? 4(a) seems to contradict by mentioning sludge along with windrows or piles. Wood chips supplemented with sludge? (*Note: This would be in- vessel.*)
- (A)(4)(a) – What about wood chips supplemented with biosolids? (*Note: In-vessel would not be required.*)
- (A)(5) – Must my windrows be covered?
- (A)(5) – Does this mean a composting facility has to cover windrows?

R18-13-904

- (A)(10, 11) – I support this being prohibited.

R18-13-905

- Nurseries do not reduce green waste all the way to compost (having a CN-ratio of 16:1 or less). If we did so, particle size would be too small and cause drainage problems within substrate
- This section describes a composting process in some detail going as far as mandating temperatures and minimum intervals of turning of windrows or piles and attesting that the finished pile does not reheat upon standing. Typical container nurseries, including Civano Nursery, do not reduce the green waste all the way to compost i.e. having a C-N ratio of 16:1 or less. If we did so, the particle size would be too small and cause drainage problems within the substrate.

Nowhere in R18-13-101 is the word “compost” defined, yet the compost process is

described at length in R18-13-901, 902, 903, 904, 905, and 906. In order for Civano Nursery or any other small to medium green waste facility to comply with 18 A.A.C. R18-13-401 through 412, i.e. composting facilities, it would almost be impossible. Firstly, what is the definition of compost by ADEQ? Secondly, is it possible that in fact we would not be considered composters but producers of bark mulch?

I firmly believe that the draft of the Administrative Rule, should define clearly the difference between mulch and compost and encourage responsible green waste reduction, i.e. R18-13-1001 (D) - illustrates the importance of controlling the size of stored green waste piles so that they do not get out of hand and become a haven for vector breeding or catastrophic fire hazard. I believe that a green waste operator should be encouraged to collect and reuse any onsite storm water or runoff. I cannot stress enough the importance of encouraging green waste operators to continue diverting green waste that would normally be delivered in an unground state to municipal landfills. The City of Tucson calculates that it receives at its landfill operations, approximately 40,000 tons of green waste per annum; because of this Mayor Bob Walkup is encouraging the reduction of green waste.

Civano Nursery in cooperation with TEP is able to reduce this green waste load to the City by approximately 2,000 tons per year by onsite grinding of our tree trimmings. We then are creating a fertile substrate that we use at our 70-acre nursery to grow trees and shrubs that eventually filter back into the City of Tucson that when planted help reduce atmospheric Carbon Dioxide.

#### **Article 10**

- May need storing rules for food waste (everything).
- Needs to go further and include reuse facilities (construction surplus, demolition, electronics, etc.)
- Will a dirty MRF fall under this area?
- What is a site vs. a facility? What is a “significant adverse effect?”
- What, if any impact will these rules have on sites for scrap metal or similar materials?
- What if a facility can be defined as all of these things: Solid waste facility, transfer facility, intermediate solid waste facility, recycling facility, and material recovery facility. In this example, if my facility falls under Article 7, then it is excluded from Article 10. And, since my facility also falls under Article 10, it is therefore excluded from Article 7.
- When are recycling materials solid waste?
- The draft “solid waste recycling facilities” requirements are problematic both with regard to their applicability and with respect to the nature of the requirements imposed. Solid waste regulatory jurisdiction over recycling is necessarily limited to the recycling of *solid waste*. Moreover, the general rule under the statute is that the recycling of solid waste is exempt from regulation. The statute specifically provides that facilities engaged in the recycling of specified materials such as glass, paper, and scrap metal – or more generally in the recycling of “other recyclable material” – are not “solid waste facilities” subject to solid waste regulation. A.R.S. § 49-701.29(d). The only exception to this general rule is for “recycling facilities,” which the statute

defines as facilities for the recycling of “solid wastes” that “have a significant adverse effect on the environment.” See A.R.S. § 49-701.29(d) and A.R.S. § 49-701.26.

## Section

### R18-13-1001

- Purports to define the circumstances under which facilities qualify as “recycling facilities” subject to solid waste regulation. Unfortunately R18-13-1001 does not limit the “recycling facility” definition to facilities that recycle “solid wastes” that “have a significant adverse effect on the environment.”
  - Would define facilities as recycling facilities if the material being recycled contains a “hazardous substance” that could be released during recycling (R18-13-1001.B. and R18-13-1001.E.), or if the recycling process “typically generates” a “hazardous substance” not originally present in the material being recycled (R18-13-1001.C.). Because the definition of the term “hazardous substance” is so broad, it is hard to imagine any recycling process (or indeed any industrial activity) that would not run afoul of these tests. After all, even a healthy human body contains "hazardous substances," produces "hazardous substances," and releases "hazardous substances" every day. These “hazardous substance” tests are inappropriate for a number of reasons, but are particularly problematic in two respects: First, the “hazardous substance” tests are unreasonable because they bear no meaningful relationship to the only relevant issue, which is whether recycling involves “wastes that have a significant adverse effect on the environment”; Second, the “hazardous substance” tests would subject virtually all recycling activities to solid waste regulation, thus abrogating the express statutory exemptions for recycling activities.
  - Appears to “assume away” the issue of whether materials being recycled can be considered “solid waste” in the first place. In particular, the rule refers to the recycling of a variety of materials (e.g., aircraft, paper, cardboard, wood, aluminum, steel) before adding a reference to “any other solid waste,” thereby implying that the materials specifically referred to are also solid wastes. However, the statutory definition of “solid waste” is limited to discarded material, and there is no basis to presume that the materials specifically referred to in the rule (assuming they are recycled) meet the statutory definition of solid waste. For example, it isn't reasonable to suggest that dealers buying scrap metal in a highly competitive market are paying good money for “solid waste,” or that the scrap metal they buy is being “discarded” rather than sold. I think the applicability of the "recycling facility" provisions needs to be significantly narrowed and that most recycling activities - certainly including those the statute specifically identifies as exempt - should not be regulated as waste management activities.
  - 1001, which defines what is a recycling facility and what is not, seems to go counter to the statutory exclusion for many types of recycling listed at 701(29)(d); there is nothing left that could be a recycling site. In addition, rule does not recognize that in order to be a waste, something has to be discarded. Suggest building the definition of recycling facility on the concept embodied in 701.01(20), especially, (c)(ii).
- (A) – States that a “material recovery facility” is a “recycling facility” subject to regulation, and the definition of the term “material recovery facility” includes a broad range of facilities involved in the recycling of *any solid waste*. See R18-

13-101. In short, R18-13-1001.A. completely disregards the fact that recycling can only be regulated if it involves solid wastes “that have a significant adverse effect on the environment.”

- (B) – States in part, “if the handling of the wastes during recycling could result in the release of the hazardous substance.” The “could result” concept seems overly broad and needs to be defined. It seems that every generator who handles for recycling the listed items would be a recycling facility. I think that the problem can be cleared up by more clarity of language. In the statute, a “recycling facility” § 49-701(26) is just a “solid waste facility” § 49-701(29); the rule appears to go further than the statute.
- (B, E) – Use of the word “could” in 1001(B) and (E) implies an infinitely small probability, and is too inclusive.
- (D) – Don’t understand. For purposes of “onsite?” Recycling?
- (D) – Should be deleted since the wording conflicts with the definition of solid waste facility. NO quantity is mentioned in the definition that would require stored material that is to be recycled to be regulated.
- (F) – Will vegetative waste information apply to waste-to-energy processes as well? Food waste may be an issue in the future. See current activities in San Francisco.

R18-13-1003

- Statute exclusions for recycling?

R18-13-1003

- With respect to the learning site provision, what about an existing facility already within a mile before rule becomes effective? Why K-12 only – what about pre-school, day care?

R18-13-1005

- (A)(6, 7) – I support this being prohibited.

**Article 11**

- How will this supercede what is in our existing solid waste plan?
- Any items shown here in Article 11, that I am not currently doing, will need to occur within five years after this is adopted?
- The City of Flagstaff already has an approved Solid Waste Facility Plan. We shouldn’t have to pay for any changes to our ADEQ-approved Solid Waste Facility Plan to comply with the new rule.
- I couldn’t find a place where bioreactors are included. Could we add placeholder language regarding closing out a bioreactor as it will be a part of solid waste.
- Language: Word “facilities” should not be found at the end of municipal solid waste landfill, nor non-municipal solid waste landfill.
- Landfills are going back and forth between APP and 258, APP and no APP.
- ADEQ can’t require APP at MSW landfills because § 49-250(19) exempts MSW landfills with plan approval from APP.
- Do any landfills have groundwater problems?

- Would plan approval for those landfills that received an APP require a new APP under the draft rule?
- Need more on learning centers throughout Article 11.

#### Section

R18-13-1101, 1102, 1103, and 1113 refer to solid waste land disposal facilities while sections 1104 on to 1112 refer to solid waste land disposal facilities that are non-municipal solid waste landfill facilities. What is the difference? If they are the same, the wording should be the same?

#### R18-13-1102

- (1) – Does this section, which mentions irrigation grandfathered rights, mean that a landfill could not be placed on farmland?
- (2)(a) – A lot of areas where FEMA has not designated flows, consultants have been asked to make some determinations.
- (2)(a): We have run into a number of situations where FEMA floodplain in the vicinity of a landfill is Zone A (i.e., approximate limits of floodplain are identified, base flood elevations and flood hazard factors are not determined). I realize that this language mirrors the statutory requirements, but can criteria be established (in the rule or by guidance) on how to demonstrate compliance with this location restriction in situations where a 100-year flow rate and corresponding delineated floodplain are not determined by FEMA?
- (7)(c) – Should be a new Arabic number here since this is not related to seismic information and readers could gloss over it.
- (7)(c): The remainder of R-18-1102.7 addresses seismic/faulting issues and item .c is unrelated to earthquake issues. If a location restriction related to learning sites is to be included, I would suggest that a new criterion (perhaps R-18-1102.9) be created to reduce the potential for this restriction to be overlooked. Note, this appears to be the only location restriction proposed to be included in R-18-1102 that is not reflected in 40CFR258.10-16 or ARS 49-772.

#### R18-13-1103

- Citation listed here, 761(C) addresses NON-municipal solid waste landfills. Either change citation or applicability.
- Our clients are concerned about a lot of demonstrations that need to be made.
- Why are the BADCT provisions of A.R.S. § 49-243(G) excluded from consideration in the ground water protection provision for plan approval? (This question is regarding a solid waste landfill at a mining site.)
- Compliance with A.R.S. § 49-243(B-F, I) Individual Permits. Will landfills need to get an APP permit?
- Is the APP contained within the plan approval? Complying with § 49-243 items is too broad and goes beyond the aquifer protection permit.
- The rule misrepresents the legislative mandate in ARS 49-761(C) to the Department for developing rules for landfills in R18-13-1103. The draft rule suggests that ADEQ may only approve facility plans for a landfill if it demonstrates compliance with the

- components of the Aquifer Protection Permit Program. AZ-SWANA's reading of the legislative mandate is for ADEQ to administer the federal rule 40 CFR 258 as the rule for municipal solid waste landfills and 40 CFR 257 as the rule for non-municipal solid waste landfills, and to not impose any additional nonprocedural standards that are more stringent than 40 CFR 258 or 257 unless they are consistent with and no more stringent than standards adopted under the APP program. The draft rule incorporates entire sections of the APP rules directly into the solid waste rule in Article 5, effectively putting all solid waste landfills back into the APP program. The rule also imposes nonprocedural standards on landfills in Article 11 that have not been adopted pursuant to the APP program. AZ-SWANA questions the prudence of imposing all of the APP rules on landfill facilities in addition to the 258 and 257 standards which have been legislatively adopted. Also Article 11 of the rule will need to be substantially edited and whole sections deleted to bring the rule into compliance with the legislative mandate of ARS 49-762.
- The reference to ARS 49-761(C) does not appear to be completely correct as 761(C) specifically applies to "solid waste land disposal facilities that are NOT municipal solid waste landfills" (emphasis added). R-18-13-1103 appears to be directed at both municipal solid waste landfills and non-municipal solid waste landfills/land disposal facilities, so a reference to the statutory authority to apply these requirements to municipal solid waste landfills should be provided.

#### R18-13-1104

- The proposed design standards seem overly prescriptive. Can the regulation be adjusted to allow some design judgments? Similar to APP BADCT?
  - Pulled out of APP and now seem to be going back.
- (C) - Would an alternative liner system designed per 40CFR258.40(a)(1) have to go through a complete BADCT analysis per ARS 49-243? The requirements of 40CFR258.40(a)(1) relate to ensuring that concentrations of parameters listed in Table 1 of 40CFR258.40 are not exceeded at the relevant point of compliance. This comment may be partially moot since most facilities in Arizona use a GCL liner under an HDPE geomembrane and would thus meet the prescriptive standard listed in R-18-13-1104.C. However, what about a situation where the in-situ soil has a permeability less than  $1 \times 10^{-7}$  cm/sec? Would this section require the facility to excavate and recompact the upper 2 feet of the in-situ soil to meet the requirement at R-18-13-1104.C.1 ("compacted soil") or go through a full BADCT demonstration?
- (E) - Most of the criteria listed in this section are not found in 40CFR258.40, which requires in 40CFR258.40(a)(2) only that the liner system have a leachate collection system that is designed and constructed to maintain less than a 30 cm (approximately 1 foot) depth of leachate over the liner (this essentially mirrors the requirement at R-18-13-1104.E.3). Some of the additional criteria established in this section may be problematic compared with existing landfill designs in Arizona, including the requirement for a 2 to 4 percent gradient throughout the base liner system (flatter slopes are usually provided along leachate collection pipe trenches) and the requirement that the system provide for "leachate storage, treatment, or pretreatment to meet the requirements for permitted

discharge...” (many facilities in Arizona generate so little leachate that the small amounts of leachate generated are applied to the surface of the landfill in lined cell areas for dust control).

(E)(2) – Most use 1.41% (this is the value when two 2% slopes intersect.).

(F)(2) – This would be included in plan. Run-on would move daily.

(F)(2) - Prevention of run-on to the working face of the facility is an operational issue due to the transitory location of the working face within a landfill. Therefore, the controls to prevent stormwater run-on to the working face (as opposed to run-on to the actual landfill facility) are typically not formally “designed” but are maintained as an operational consideration. How will a Solid Waste Facility Plan demonstrate that a facility complies with this requirement that a run-on control system is “designed and constructed so that it accomplishes...[prevention of] run-on to the working face of the facility by the use of temporary controls.” Will the temporary controls be required to be “designed” by a registered P.E.?

(G)(2) – Isn’t the intent of a bioreactor to create leachate? This seems contradictory.

(G)(10) – Limit and restrict indefinite period for flaring.

(G)(10) – (Fourth line): Add language, “landfill gases will not support...”

(H)(3) - This requirement for 2 tons/acre/year of soil loss from an evapotranspiration final cover is not found in 40CFR258.60 and may be difficult to reach with certain soils and environmental conditions in Arizona (especially the difficulty in establishing dense vegetation without application of supplemental irrigation). Maintenance of a cover which has a soil loss exceeding 2 tons/acre/year would increase post-closure maintenance costs but only peripherally affect the facility’s potential to adversely affect groundwater quality since the design of the groundwater protection provided by the liner system is generally based on open (i.e., uncovered) conditions.

(H)(4) – Silt will also pass through this 200# sieve screen. Should clarify intent.

(H)(4) – Soil particles passing the #200 sieve include both silts and clays. Is this requirement stating that the cover soils must have no more than 35% passing the #200 sieve or that the percentage of clay particles needs to be less than 35% (and the percentage passing the #200 sieve could be more than 35% if some of the 200-minus soil was silt)?

(H)(6) – Average annual number or peak day?

(H)(6) – Does this standard apply to peak day or annual average leakage rate? The current standard in guidance issued by PRU is 1 mm/yr, which is approximately 21 gallons/acre/day, so it would appear that an annual average was intended but it is not clear in the proposed rule language.

#### R18-13-1105

- No operating standards for ground water monitoring.
- This section blends requirements at apply to a landfill that receives waste from offsite while a “privately owned and operated non-municipal landfill” who will not receive waste from offsite must still seem to comply with all aspects of the section. Suggest adding “as applicable” or separating out the exact requirements for facilities that do not handle waste from other sources. See A3, A11, B1 and B5.



- (A)(3)(a)(ii) – This language indicates that leachate or gas condensate can be applied in a landfill. This appears to conflict with the requirement at R-18-13-1104.E.5, which appears to require that the leachate system of a landfill be designed to provide for storage or treatment and off-site disposal of leachate.
- (A)(9) – How will “adverse effects” be defined? That language appears to be vague and open to interpretation by individuals who may have different ideas on what constitutes an “adverse effect”.
- (B)(3) – Would be helpful to define certain ADCs in rule. Thickness criteria would be helpful.
- (B)(3) – Provide guidance on acceptable ADC types as an informal informative document.
- (B)(3) – Can a general approval for tarps meeting or exceeding certain characteristics (mass per unit area, ultraviolet stability, etc.) be provided so that a facility does not have to submit a permit change request if they have to change tarp manufacturers? Also, would it be possible to allow alternative daily covers that have been approved by ADEQ at any facility in Arizona to be approved by reference at other facilities in Arizona, without requiring a submittal of a permit revision request requiring technical review (i.e, Type III change)?
- (B)(5)(d) – Move to contingency plan.
- (C) – Provide for return to compliance.
- (C) – Suggest use of “return to normal” instead of “weekly.”

R18-13-1106 though R18-13-1110 make provisions that if the facility has an APP that those provisions shall be followed in lieu of these sections.

R18-13-1108

- (E) – 10-year requirement for record retention vs. 60 months in 405(C). Need verify there is not a conflicting time requirement.
- (E) – The 10 year records retention time frame appears to conflict with the requirement for a 5 year records retention time frame at R18-13-405.C.

R18-13-1111

- (F) – The six-month requirement is difficult due to procurement methods in obtaining a contractor for closure. Clients would like more time.
- (F) – The requirement to complete final closure within 6 months of the receipt of last waste can be difficult to meet for some (especially municipality) landfill owners due to the timeframe required to survey the site after final closure, have a registered PE design the final closure and issue construction documents, procure a closure construction contractor, perform the closure construction, and certify that the closure construction meets the requirements of the design. Some flexibility in application of this time frame would be helpful.

R-18-13-1114

- (B) and (C) - Some of these requirements are not currently in the restrictive covenant requirements of ARS 49-771. If a facility currently has a restrictive covenant

which does not include some of the language/attachments required by R-18-13-1114, will it be required to execute and file a new restrictive covenant?

R18-13-1115

(A)(4) – Why? If still small landfill.

R18-13-1120

(B) – Does 1120(B) mean that Article 11 is not applicable to a surface impoundment at a solid waste facility with an APP?

(B) – Clarify. Are APP permits exempt?

#### **Article 17**

- Article 17 refers to local health departments in several places. (It shouldn't.) Counties should only accept delegation of state rules. State rules can't give direction to counties (as the draft appears to do). Remedy: Drop references to counties out of the draft. Also some counties use other agencies besides health departments to do this.

#### **Section**

R18-13-1701

(D) – Add reference to environmental services programs to reference to “local health department.”

R18-13-1703

(A)(6) – Define disinfected.

(B) – Why are we eliminating county approval process for designated areas?

R18-13-1704

(C) – How does this work? What is the administrative procedure for my county to suspend a state vehicle license?

#### **Article 18**

- Is there any provision regarding use of a U.S. bank?

#### **Section**

R18-13-1802

(B) – Within 180 days of what? A facility already in operation? Need clarification on this point.

(C) – What would happen if the status of a waste definition changes over time – for example, if the definition of a certain type of waste changes so that it is considered a bio hazard?

(C)(3) – Are there guidelines for closure plans?

(C)(4) – The area for landfills for financial assurance requirements is not clear. Need to clarify the physical area. Should not apply to undisturbed areas.

- (E) – Can't get bond approved until ADEQ approval. Can't get ADEQ approval until bond approved. A change of language to estimate bond requirement would be very helpful.
- (E) (4) – Some of my clients have had difficulty with getting a revised financial assurance mechanism (bond, insurance, or similar) for an increased area due to a requested facility permit change until the change is approved by ADEQ. The proposed language in this section indicates that the revised financial assurance mechanism would need to be submitted to ADEQ as part of the change request. Perhaps the language could be modified to require that an updated financial assurance cost estimate be included with the change request with the ability of the landfill owner/operator to develop and utilize any larger area included in the request contingent on submittal of a revised financial assurance mechanism based on the increased cost estimate within a specified time frame after ADEQ approval of the change request.

## Article 21

- Can we pay our quarterly fees annually to save money on check writing and processing?

## Section

R18-13-2109

- The statute calls for owner in some areas, and operator in others. The rule needs to reflect these language usages.

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